Appl. No. 09/482,178
Reply to Office Action of November 21 2003

Docket No. EMPIR-012AUS

REMARKS/ARGUMENTS:

Applicants respectfully request the Examiner to reconsider the claims in view of the following remarks.

Claims 1-18 and 20-22 are pending in the application. Claims 1-18 and 20-22 are rejected.

The Rejection Under 35 U.S.C. §103(a)

The Examiner rejects Claims 1-18 and 20-22 under 35 U.S.C. §103(a) as being unpatentable over Weinberg et al. (US patent number 5,974,572) in view of Logan (US patent number 6,574,578). The Examiner asserts, "Weinberg discloses a Web site (server) analysis program... that emulates multiple concurrent users on the system." With her assertion, the Examiner recognizes that Weinberg et al. describes load testing. The Examiner also asserts that at column 6, lines 8-15, "Weinberg specified that the content tested is objects (components)... ." The Examiner recognizes that Weinberg et al. does not provide extensive details concerning the testing of individual application components. The Examiner relies upon Logan as teaching at column 2, lines 19-22 and at column 6, lines 52-54, "...more specific details regarding application components." With regard to independent Claims 1, 10, and 13 the Examiner concludes that it would have been obvious, to one of ordinary skill in the art...to modify Weinberg's invention which generates a load test on a server by including Logan's invention which disclosed more details regarding the testing of application components... ." Applicants respectfully traverse the Examiners rejection.

As the Examiner is aware, and as found in MPEP §2142, in order to establish a prima facie case of obviousness "...there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." Therefore, it is not sufficient for the Examiner to pick and choose aspects in the references to combine without a suggestion of the

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combination in the references. Applicants respectfully submit that Weinberg et al. and Logan neither describe nor suggest a combination of "...providing test code that exercises said *technology based software component* of the application under test..." with "...synchronizing and executing *a plurality of instances of the test code...* ," as recited in Claim 1. In other words, Applicants submit that the references fail to describe or suggest load testing of technology based software components. Therefore, Applicants submit that the Examiner has not made a prima facie case of obviousness since there is no reason or suggestion found in the prior art references that would have led one of ordinary skill in the art to produce the claimed invention.

As an initial matter, Applicants submit that, contrary to the Examiner's assertion, the "content object[s]" defined by Weinberg et al., at column 6, lines 8-15, are not "technology based software components" as claimed, and therefore, Weinberg et al. does not describe or suggest the claimed technology based software components. As described, for example, at page 3 of the substitute specification provided in the Response dated July 2, 2003, the present invention can apply to an N-tier software model. As described at page 3, first paragraph, in an exemplary 3-tier software model, the "three tiers are the front end, the middleware, and the back end. The back end is the database. The front end is sometimes referred to as a 'client' or Graphical User Interface (GUI). The middleware is the software logic that *manages interactions with the database* and captures the 'business logic'." Furthermore, at page 4, first paragraph, it is stated "[o]ne advancement in the N-tiered model is that the middleware is very likely to be written to a *component standard* so that it will easily integrate with software at other tiers." Enterprise JavaBeans (EJBs) are used as an example software component standard throughout the specification. Therefore, the *technology based software components* of the present invention include middleware, which interact with a database.

In contrast, Weinberg et al., describes load testing of "content objects," which are described at column 6, lines 8-15 to include "HTML documents, GIF files, sound files, Java applets and aglets, and downloadable applications...." Applicants submit that HTML documents, GIF files, sound files, Java applets and aglets, and downloadable applications are front end software, know to interact with a GUI. Therefore, Applicants submit that Weinberg et

al. does not contemplate "...providing test code that exercises *said technology based software component* of the application under test...," as recited in Claim 1.

The Examiner relies upon Logan to show details of testing of software components. However, Applicants submit that Logan does not contemplate "...synchronizing and executing *a plurality of instances of the test code...*," as recited in Claim 1. In other words, Applicants submit that Logan does not contemplate load testing. In support of Applicants submission, Applicants respectfully direct the Examiner's attention to Logan, at column 6, lines 26-32, where it is stated that "[t]he test suites are loaded from the repository, at run time, to perform *regression testing* (i.e., repeating an established suite of tests to make sure there are no unintended changes in the behavior of the software induced by the addition of new features or fixes.)." (emphasis added). Regression testing will be understood by one of ordinary skill in the art to be a type of testing different from load testing. Load testing uses a plurality of instances of a test code to simulate multiple users, while regression testing uses a single instance of a test code (which can have multiple portions) to test for changes in software performance.

Applicants submit that the Examiner has sought to combine the load testing found in Weinberg et al. with the testing of software components found in Logan. For the above reasons, Applicants submit that this combination is not suggested by either reference.

In view of the above, Applicants submit that Claim 1 is patentably distinct over Weinberg et al. and Logan.

Claims 2 to 9 depend from and thus include the limitations of Claim 1. Thus, Applicants submit that Claims 2 to 9 are patentably distinct over the cited references generally for the reasons discussed above in conjunction with Claim 1.

Applicants submit that Claim 6 is further patentably distinct over Weinberg et al., whether taken alone or in combination with Logan, since the cited references neither describe nor suggest "... preparing a graphical display having as an independent variable the number of

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instances of the test code and the dependent variable is the performance data," as required by Claim 6.

With regard to Claim 6, the Examiner states that Weinberg et al. describes in FIG. 25 and at column 32, lines 51-58, "...multiple Vusers (i.e., multiple instances of the Vuser executable) can be run simultaneously on a single workstation...This produces a load in which multiple client requests can...be pending at-a-time." However, Applicants submit that neither FIG. 25 of Weinberg et al., nor text recited by the Examiner describes the claimed graphical display having as an independent variable the number of instances of the test code and the dependent variable is the performance data.

Applicants submit that Claim 7 is further patentably distinct over Weinberg et al., whether taken alone or in combination with Logan, since the cited references neither describe nor suggest "... preparing a graphical display having as an independent variable the number of instances of the test code and the dependent variable is derived from the performance data," as required by Claim 7.

With regard to Claim 7, the Examiner states that Weinberg et al. describes in FIG. 26 and at column 33, lines 3-8 that the "...user is presented with a set of graphical reports that allow the user [to] evaluate the site's performance... ." However, Applicants submit that neither FIG. 26 of Weinberg et al., nor text recited by the Examiner describes the claimed graphical display having as an independent variable the number of instances of the test code and the dependent variable is derived from the performance data.

For substantially the same reasons described above in conjunction with Claim 1, Applicants respectfully submit that Weinberg et al. and Logan neither describe nor suggest a combination of "...gathering of test data on the performance of at least *one technology based software component* of the application under test..." with testing "...at *a plurality of load conditions...*," as recited in Claim 10.

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Accordingly, Applicants submit that Claim 10 is patentably distinct over Weinberg et al. and Logan.

Claims 11 to17 depend from and thus include the limitations of Claim 10. Thus, Applicants submit that Claims 11 to 17 are patentably distinct over the cited references generally for the reasons discussed above in conjunction with Claim 10.

Applicants submit that Claim 11 is further patentably distinct over Weinberg et al., whether taken alone or in combination with Logan, since the cited references neither describe nor suggest "... the specified format is a graphical format indicating response time as a function of load conditions," as required by Claim 11.

With regard to Claim 11, the Examiner states that Weinberg et al. describes at column 33, lines 3-4 that the "...user is presented with a set of graphical reports... ." However, Applicants submit that the text recited by the Examiner does not describe the claimed graphical format indicating response time as a function of load conditions.

Applicants submit that Claim 12 is further patentably distinct over Weinberg et al., whether taken alone or in combination with Logan, since the cited references neither describe nor suggest "... the specified graphical format is a Hi-Lo plot," as required by Claim 12.

With regard to Claim 12, the Examiner states that Weinberg et al. describes at column 33, lines 3-4 that the "...user is presented with a set of graphical reports... ." However, Applicants submit that the text recited by the Examiner does not describe the claimed graphical format is a Hi-Lo plot.

For substantially the same reasons described above in conjunction with Claim 1, Applicants respectfully submit that Weinberg et al. and Logan neither describe nor suggest a combination of "...providing test code to exercise a *selected technology based software*

component; with "...creating a first plurality of copies of the test code...[and] *simultaneously executing the first plurality of copies of test code*... ," as recited in Claim 18.

Accordingly, Applicants submit that Claim 18 is patentably distinct over Weinberg et al. and Logan.

Claims 20 to 21 depend from and thus include the limitations of Claim 18. Thus, Applicants submit that Claims 20 to 21 are patentably distinct over the cited references generally for the reasons discussed above in conjunction with Claim 18.

Applicants submit that Claim 21 is further patentably distinct over Weinberg et al., whether taken alone or in combination with Logan, since the cited references neither describe nor suggest "... the events at which times are recorded includes times at which commands are issued to access functions of the software components and times at which execution of the commands are completed," as required by Claim 21.

For substantially the same reasons described above in conjunction with Claim 1, Applicants respectfully submit that Weinberg et al. and Logan neither describe nor suggest a combination of "... the test engine comprising a computer server having a plurality of threads thereon, *each thread executing an instance of the client test code*..." with "...client test code accesses said *technology based software component*... ," as recited in Claim 22.

Accordingly, Applicants submit that Claim 22 is patentably distinct over Weinberg et al. and Logan.

In view of the above, Applicants submit that the rejection of Claims 1-18 and 20-22 under 35 U.S.C. §103(a) should be removed.

In view of the above remarks, Applicants submit that Claims 1-18 and 20-22 and the entire case are in condition for allowance and should be sent to issue and such action is respectfully requested.

It is submitted that this Response places the application in condition for allowance or better form for appeal by restricting the issues on appeal, and thus, entry of this Response is respectfully requested under the provisions of 37 C.F.R. §1.116.

The Examiner is respectfully invited to telephone the undersigning attorney if there are any questions regarding this Amendment or this application.

The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845.

Respectfully submitted,

Dated: _Feb / 8, 2004_   DALY, CROWLEY & MOFFORD, LLP

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Attachments: none

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